Due: Tues. Feb. 21, 2017 in class

Problem 3.3(a): 10 points
Problem 3.3(b): 10 points
Problem 3.3(c): 10 points

Preparation: Read or review Chapter 3 of the textbook.
- Loudon, “Compiler Construction” - see section 3.2.3 “Derivations and the language defined by a grammar”, focusing on the portions about leftmost and rightmost derivations (pages 100-116).

3.3 Given the grammar

\[
\begin{align*}
exp & \rightarrow exp \ addop \ term \mid term \\
addop & \rightarrow + \mid - \\
term & \rightarrow term \ mulop \ factor \mid factor \\
mulop & \rightarrow * \\
factor & \rightarrow ( \ exp ) \mid number
\end{align*}
\]

Write the complete leftmost and rightmost derivation sequence for each of the following expressions:

a. \(3+4*5-6\)  
\(3*(4-5+6)\)  
\(3-(4+5*6)\)